

WHAT IS CLAIMED IS:

1. A method for amplifying a transcriptionally-active polynucleotide, comprising:

5 PCR-amplifying a first fragment of DNA with a first primer pair, wherein the first primer pair, upon such amplification, adds to first and second ends of the first fragment predetermined first and second regions of complementarity, to form a second DNA fragment having said first region of complementarity at a first end and a second region of complementarity at a second end of said second DNA fragment;

10 providing a promoter-containing sequence and a terminator-containing sequence, said promoter-containing sequence further including a region complementary to said first region of complementarity, and said terminator-containing sequence further including a region complementary to said second region of complementarity, wherein both said promoter-containing sequence and said terminator-containing sequence include an internal nucleotide capable of forming an A-T base pair immediately adjacent to said region of complementarity;

15 joining said promoter-containing sequence to said first end of said second DNA fragment and said terminator-containing sequence to said second end of said second DNA fragment to form said third DNA fragment; and

20 PCR-amplifying said third DNA fragment.

25 2. The method of claim 1, wherein said joining comprises joining in the presence of polymerase said promoter-containing sequence to said first end of said second DNA fragment and said terminator-containing sequence to said second end of said second DNA fragment to form said third DNA fragment.

3. The method of claim 1, wherein said promoter-containing sequence and said terminator-containing sequence further comprise a non-DNA, binding moiety capable of interacting with said second DNA fragment.

30 4. The method of claim 3, wherein said non-DNA, binding moiety comprises a PNA molecule.